

# **EDRS 590**

**GEORGE MASON UNIVERSITY  
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT**

**EDRS 590  
EDUCATION RESEARCH  
Spring 2005  
TUESDAYS 7:20 -10:00  
INNOVATION 317**

## **PROFESSOR(S):**

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## **COURSE DESCRIPTION:**

Helps students develop skills, insights, and understanding basic to performing research, with emphasis on interpretation and application of research results. The course critiques research and uses findings in educational settings.

## **NATURE OF COURSE DELIVERY:**

**Lecture, cooperative groups, use of Internet, student discussion**

## **STUDENT OUTCOMES:**

**This course is designed to enable students to:**

- Acquire a knowledge and understanding of the basic types of educational research and how each type is used in educational decision-making.
- Develop the skills necessary to use educational research in his/her role as a teacher, administrator, or other education professional.
- Practice the knowledge and skills learned by interpreting and designing educational research studies.

## **REQUIRED TEXTS:**

Creswell, John W. (2005). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Pearson Education: Upper Saddle River, New Jersey.

### **Suggested reference:**

American Psychological Association. (2001). Publications Manual of the American Psychological Association (5<sup>th</sup> ed). Washington, D.C.: Author.

## **COURSE REQUIREMENTS, PERFORMANCE-BASED ASSESSMENT, AND EVALUATION CRITERIA:**

### **1. Research Plan (50 % of the grade)**

The student will develop a research plan on a topic of interest to the student. Each student will work individually to develop a series of research questions of interest and will plan a research study to investigate one of those questions. To help the student develop the skills necessary, a series of short reports will be submitted for feedback as the semester progresses.

These reports will cover the following topics:

Report #1: Asking worthwhile questions about your professional practice.

Report #2: Finding out what's already known about your topic of interest.

Report #3: Planning the appropriate methods and procedures for investigating your topic of interest in your own professional practice.

The initial versions of each report will count as 5% of the final grade (total 15%) and the final version of the action research plan will count as 35% of the final grade (total =50%) for this series of assignments.

### **2. Critique of existing piece of research (25% of grade)**

The student will select an existing piece of research, analyze the research using the skills developed in the course, and critique the research as to its potential use in educational decision-making.

### **3. Class Participation and Writing Assignments**

Students are expected to attend class and participate in small and large group discussions and hand in written work as assigned. Students absent from any class will be given a written assignment to be counted as part of their participation grade. Students absent from SPSS class presentations must make up the work in the computer lab on their own time or lose points from their class participation grade.

### **4. In class presentation of research proposal (10% of grade)**

Students will prepare a PowerPoint or other visual presentation of their research proposal and will present that report to the class along with an abstract of their report for each class member.

## **GRADING**

Successful completion of 1-4 above at a graduate-school level will guarantee the student a grade of at least a "B." Superior work will merit an "A". Less than successful completion of the requirements will result in a "C" or less. Less than successful completion of the requirements with any missing element will result in an "F".

## COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS:

The Graduate School of Education (GSE) expects that all students abide by the following:

Students are expected to exhibit professional behavior and dispositions. See [gse.gmu.edu](http://gse.gmu.edu) for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See [http://www.gmu.edu/catalog/apolicies/#TOC\\_H12](http://www.gmu.edu/catalog/apolicies/#TOC_H12) for the full honor code.

Students must agree to abide by the university policy for Responsible Use of Computing. See <http://mail.gmu.edu> and click on Responsible Use of Computing at The bottom of the screen.

Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See [www.gmu.edu/student/drc](http://www.gmu.edu/student/drc) or call 703-993-2474 to access the DRC.

### EDRS 590 Spring 2005 Course Schedule Instructor: Dr. Carol G. Raphael Tuesday 7:20-10:00

Session	Date	Topic	Due Today	Assignment For Next Class
1	1/25	Course overview, overview of types of research approaches and methods, goals of action research; evaluating existing research in your field		<b>Chapters 1, 2, 3 in text</b>
2	2/1	Asking worthwhile research questions for your professional practice; recognizing and selecting appropriate research methods; in-class exercise on asking a worthwhile action research question		Chapter 4 in text Bring to class possible topics for your research proposal
3	2/8	<b>Meet in Johnson Center Library Research Room on second floor.</b> Finding existing information on your topic of interest; using ERIC and other library sources; a field trip to investigate the resources of the library; a brief introduction to the APA Style Manual	<b>Topics for research proposal</b>	<b>Read chapter 5 in text</b>
4	2/15	Formulating a research question		<b>Report 1 due next class. Read chapter 11</b>
5	2/22	Research designs Part I, Class presentation of report 1	<b>Report 1 due</b>	<b>Read chapters 12 and 13</b>
6	3/1	Research designs Part II Read and critique qual article in class Report II Walkthrough		<b>Read chapters 14 and 15</b> <b>Report 2 due</b>

7	3/8	Research designs Part III	<b>Report 2 due</b>	Read and critique quan research article online Reducing Teacher Stress <b>Read chapter 10,16,17,18</b>
8	3/22	Planning your research:How to deal with internal and external validity problems research design priniciples A walkthrough of report 3		<b>Read chs. 8 and 9</b>
9	3/29	Collecting Qualitative Data	<b>Due report 3</b>	<b>Read chs. 6 and 7</b>
10	4/5	Making inferences about the causes of the effects of basic descriptive statistics	<b>Qualitative research competency tests due</b>	
11	4/12	Describing the outcomes of your professional practice – using and understanding the methods of descriptive statistics		<b>Research critique due</b>
12	4/19	How to collect and process data in action research; preparing data for analysis; using the computer in data analysis; review of data analysis interpretation	<b>Research critique due</b>	
13	4/26	Performing data analysis		<b>Research proposal presentation</b>
14	5/3	Presentation of research proposals		
15	5/10	<b><i>Final Research Proposal Due</i></b>		

**EDRS 590**  
**Research Proposal Guidelines**  
**Dr. Carol G. Raphael**

The research proposal should have the following parts:

Title page

Abstract

Introduction including in narrative form: brief overview and statement of problem, statement of research hypothesis, significance of research.

Review of Literature – in narrative form a review of pertinent literature to your problem

Method of Research including population, sample, instruments, design, and how you will analyze data

Literature Cited (references)

Appendices (if applicable to include any instruments you develop)

Your proposal should be typewritten, double-spaced, and follow APA format. Margins should be 1” on the sides and 1.25” top and bottom each page should be numbered starting with page 1 of your proposal. Do not number your title page. Your textbook lists APA reference formats beginning on page 509.

Your title page should have the following format:

4 inches  
Does Spiraling Chemistry Curriculum Influence the Retention of Mole Concepts in  
Beginning Chemistry Students?

A research proposal  
By  
Carol G. Raphael

In partial fulfillment of EDRS 590  
December 12, 2004

It is estimated that the proposal in order to be thorough will be approximately 8 pages minimum not counting the list of references.

**ASSESSMENT RUBRIC(S)**

Rubric for Proposal

The final proposal is worth 35 points. The points will be awarded as follows:

Body of paper with all parts and all references cited appropriately	20 points
No spelling errors or typos, cover sheet	5 points
References correct number and APA style	
Appropriate Research Techniques used	<u>10 points</u>
Total	35 points

### RESEARCH ARTICLE CRITIQUE INSTRUCTIONS

**As part of the course requirements in EDRS 590, you will submit a research article critique. The purpose of this critique is to give you practice in selecting, reading, and evaluating a research study.**

You should select a research study that is related to your topic for your Research proposal. The research study should be one in which data is collected and analyzed and should come from a research journal. The research critique should include the following parts:

- 1) a short but complete description of the reviewed research
- 2) A brief critique of the study, describing its study, describing its weaknesses and strengths in research design, generalizability of conclusions, and any other considerations affecting the usefulness of this research.
- 3) a brief set of recommendations as to the worth of the study for use by you as a educator

In general, the report should:

- be complete in its coverage but also tightly organized and succinct
- be typed and approximately 4-8 pages in length, double spaced
- should not be a close paraphrase or a copy of any part of the original study, but should represent your interpretation and statement of the contents of the report
- should include a cover page
- should include a photocopy of the original article that you are critiquing as an appendix to your critique

The grading criteria are as follows:

- a) overall style and clarity - 20%
- b) completeness of summary - 30%
- c) completeness of quality of critique - 30%
- d) quality of recommendations of the use of the study - 20%

**Reports 1, 2, 3 will** be worth 5 points each. As long as all questions are answered completely, the student will receive all five points. Since the purpose of these reports is to provide feedback for the proposal, an honest attempt on the student's part to complete the assignments is encouraged.